

Flood News for Michigan Floodplain Managers

A quarterly newsletter of the
Land and Water Management Division
Michigan Department of Environmental Quality

www.michigan.gov/deq

Steven E. Chester, Director

Jennifer M. Granholm, Governor

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We are gradually reducing the number of hard copy mailings of the newsletter and relying more upon electronic distribution and availability. If you are not getting an electronic distribution of the newsletter and desire to do so, please notify me. You may respond by e-mail to thomasl@michigan.gov, or mail to Les Thomas, MDEQ-LWMD, PO Box 30458, Lansing, MI 48909.

DISTRICT FLOODPLAIN ENGINEERING STAFF

SE Michigan: Maria Zingas and
Patrick Durack
Livonia 586-753-3700
Jackson/Lansing: Donna Cervelli
Jackson 517-780-7699
Lansing 517-335-6266
Saginaw Bay: Joy Brooks
Bay City 989-686-8025 ext 8364

Grand Rapids: Matt Occhipinti
616-356-0207
Kalamazoo: Carrie Wontoriak 269-567-3564
Upper Peninsula: Sheila Meier
Gwinn 906-346-8500
Cadillac/Gaylord: Susan Rundhaug
Cadillac 231-775-3960 ext 6363

ASFPM 2005 Annual Conference June 11 - 17, 2005 Madison, Wisconsin

All Michigan communities are urged to attend this year's Association of State Floodplain Managers (ASFPM) annual conference. The ASFPM website www.floods.org can provide you with all the program and registration information.

The 2005 national floodplain managers conference is in Madison, Wisconsin. Planners, engineers, consultants, watershed managers, educators, and others will gather with government officials for the largest and most comprehensive floodplain management conference in the world. Throughout the week, over 150 industry experts will conduct plenary and concurrent sessions, sharing state-of-the-art techniques, programs, resources, materials, equipment, accessories, and services to accomplish flood mitigation, watershed management, and other community goals.

You will find the best of all worlds in Wisconsin's capitol city and picturesque surrounding communities: incredible natural beauty, limitless outdoor recreation activities, an exceptional array of cultural opportunities, fabulous shopping, superb dining, and an irreverent spirit of fun.

Monona Terrace

The Frank Lloyd Wright-designed Monona Terrace Convention Center is located in the heart of Madison's vibrant downtown on the shore of Lake Monona, two blocks from the Wisconsin State Capitol. This spectacular multi-level structure opened on July 18, 1997, ending a 60-year journey. In 1938, renowned architect Frank

Lloyd Wright proposed his plan for Monona Terrace, revising it several times over the decades to meet the city's changing needs, fighting unsuccessfully for the project until his death in 1959. In 1992, the final stage of the journey began when voters approved a referendum for the building, using Wright's 1959 Monona Terrace design for the exterior, while the interior was redesigned by Wright's apprentice, Tony Puttnam of Taliesen Architects.

Attention All Building Officials/Floodplain Administrators

By Maria Zingas and Les Thomas

Reminders are good. Often I am reminded by family members of what I should be doing. Reminders help us through busy days, which many of us can appreciate. The following is a friendly reminder to communities participating in the National Flood Insurance Program (NFIP) of their duties and responsibilities to their citizens and to FEMA.

Much credit is given to community efforts in managing floodplain development. Those efforts directly benefit current and future citizens of your community. Putting the best effort forward requires the administration of an effective floodplain management program. An effective program requires the completion of many tasks by the communities' floodplain managers. NFIP communities must recognize that the Michigan Department of Environmental Quality (MDEQ) can provide guidance to the communities, but the quality of the program is determined by the community administrators.

A community's participation in the NFIP carries with it enforcement and management commitments that are frequently lost in the shuffle of the many local community duties. Community official changeover is a major contributing factor for this. These factors are recognized as something to make the best of, by providing training opportunities and reminders such as this article to community officials.

Below is a summary of the requirements and other recommendations for the local or county building official and/or floodplain administrator to administer an effective floodplain management program:

1. NFIP communities are responsible for making initial determinations of whether a project is within the 1 percent (100-year) floodplain area or special flood hazard area and obtaining the 100-year floodplain elevation using the Flood Insurance Rate Maps (FIRM). NFIP communities are committed to having current effective FEMA flood maps available for public and official use at the local office. If you do not have

the FEMA maps, please contact FEMA at 1-877-FEMA-MAP to obtain the maps for your community.

Often MDEQ staff find that NFIP community citizens have been told by their community officials to contact the MDEQ for this determination. MDEQ can assist a community official in learning how this is to be done; however, it is not MDEQ's responsibility to do it for the community. The citizen should expect the community to make this determination and to have it made in a more timely manner than can be provided by the MDEQ.

2. The shaded areas of the FEMA flood maps represent the best approximation of where the floodplain line is. It is best to require a topographic survey of the site to confirm whether the site is or is not in the floodplain.
3. For flood Zone A or AH, areas where no floodplain elevations are available, you may direct the citizen to contact the MDEQ for additional assistance. Service request forms are available for citizens to submit their information to the MDEQ for review and recommendations. The MDEQ will supply the citizen with an elevation, if possible, or direct them to hire a consultant to make that determination.
4. All streams and drains have a floodplain, even if they have not been mapped. In unmapped areas, the building official should use the best available information to determine if an area is subject to potential flooding. If the drainage area of the stream or drain is over two square miles, even if the area is not mapped, a permit is required from the MDEQ under Part 31 for any construction, grading, or filling in the floodplain. The MDEQ, Land and Water Management Division, processes these permits. The MDEQ district floodplain representatives are as follows:

Southeast Michigan

Maria Zingas: 586-753-3872 or
Patrick Durack: 586-753-3865

Saginaw Bay

Joy Brooks: 989-686-8025 ext. 8364

Lansing

Donna Cervelli: 517-335-6266

Jackson

Donna Cervelli: 517-780-7699

Grand Rapids

Matt Occhipinti: 616-356-0207

Kalamazoo

Carrie Wontorcik: 269-567-3564

Upper Peninsula

Sheila Meier: 906-346-8558

Cadillac

Susan Rundhaug: 231-775-3960

It is the responsibility of the local building official or the individual in charge of enforcing the state building code and the NFIP to determine if a MDEQ permit is necessary prior to issuing a construction code building permit.

For complex projects or questions that you may not have answers to, please contact your local MDEQ representative listed above.

5. If the proposed project is in a floodplain regulated by the MDEQ, the community should direct the citizen to fill out a Joint Permit Application (JPA) and submit it to the MDEQ for review and approval. JPA's are available on the internet at <http://www.michigan.gov/jointpermit>. It is helpful if these permit packages are available at the community office. If you do not have access to these materials, please contact the local MDEQ office for copies.

If you need assistance in understanding the JPA, please visit the JPA website and review the training manual. You may also contact the local MDEQ office for assistance by calling the numbers provided above.

6. A community may proceed with the final processing of its construction code building permit once the MDEQ floodplain permit has been issued. Copies of the MDEQ floodplain permits are sent to the local building official and/or engineering

department. It is very important for the community to review the specific conditions of the MDEQ permit, because those conditions may directly affect the actions that need to be taken by the community when making the final determination for the construction code building permit. Some communities have more stringent requirements for elevations and cut/fill volumes. If the MDEQ issues a floodplain permit, it does not mean you must automatically issue your building permit, as well. Please make sure your issues and concerns are addressed in your local permit process.

8. After you review the permit application and issue a construction code building permit, the community needs to consider and comply with the following items as the authorized floodplain development progresses:
 - a. Require and ensure that proper flood resistant construction methods found in state construction code are used.
 - b. Visit the site after the building has been staked to determine if the structure is properly located.
 - c. Require an elevation certification after the lowest floor, including the basement, has been installed prior to any further vertical construction.
 - d. Conduct a final inspection upon project completion and make sure an elevation certificate is provided and confirms that the elevation requirements of the code have been complied with before issuing a Certificate of Occupancy.
9. Official documentation that construction took place according to approved plans and the permit(s) are vital. The following records and/or certificates must be provided upon completion of the permitted activity to the community and available to the MDEQ.
 - a. An elevation certificate, which is the official record for new construction and substantial improvement construction structural elevations. The FEMA's Elevation Certificate Form (FEMA Form 81-31) can be used for this.

- b. Floodproofing certificates for non-residential structures that document the structures to be watertight or substantially impermeable to flood waters (an option only allowed for non-residential buildings). FEMA's Technical Bulletin 3-93, "Non-Residential Floodproofing Requirements and Certification for Buildings Located in Special Flood Hazard Areas", (SFHA), has a detailed discussion of these requirements and includes a Floodproofing Certificate Form that must be signed and sealed by a Registered Professional Engineer or Architect.
- c. A certificate by a qualified design professional that indicates the land or structures to be removed from the SFHA are reasonably safe from flooding, according to the criteria described in FEMA's Technical Bulletin 10-01, "Ensuring that Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe from Flooding in Accordance with the NFIP".
- d. Records of crawl space construction meeting NFIP minimum requirements for crawl space construction in the SFHA. FEMA's Technical Bulletin 11-01, "Crawl Space Construction for Buildings Located in Special Flood Hazard Areas", presents NFIP minimum requirements for crawl space construction in the SFHA.
- e. A non-conversion certificate for developed areas which cannot be used for residential occupation (for example, storage areas above existing garages in the floodway, storage areas below the 100-year floodplain, or basements below the 100-year floodplain. A sample form is available from the MDEQ).
- f. For substantial improvements and substantial damages that meet or exceed 50 percent of the market value of the structure, verification that the new or substantially improved structure is elevated or floodproofed.

- 10. If a citizen believes their structure or parcel is not within the floodplain, as shown on the FEMA flood maps due to unaccounted-for high ground, a citizen can request FEMA to conduct a review for a Letter of Map Amendment (LOMA). FEMA is the only agency that can amend or revise the FIRM maps – not the MDEQ or the local building official. You may direct the citizen to obtain copies of the forms and additional information by visiting <http://www.fema.gov/nfip/forms.htm>.
- 11. The NFIP makes flood insurance mandatory when federally guaranteed loans are used for structures and properties located within the special flood hazard areas. Financial institutions must require flood insurance in these instances. The FEMA determines the insurance premiums based on when the building was built in relation to the date of the first published FIRM, finished floor elevation, and flood zone. The NFIP insurance rates are established by federal law. MDEQ does not control these rates, and the MDEQ cannot remove a site from the special flood hazard area; only the FEMA can. If the owner receives a LOMA or a LOMR-F from the FEMA, they can present the information to their financial institution. Financial institutions may still require flood insurance even after a LOMA or a LOMR-F is issued. If an area has not been mapped by the FEMA, then flood insurance is not required, and a LOMA or LOMR-F is not available or required.
- 12. Any watercourse alterations or relocations must not increase the community's flood risk or those of any adjacent community or individuals. When developers and individuals propose the relocation or alteration of watercourses within your community, please advise them to apply to the MDEQ for a permit prior commencement of construction activities.

The MDEQ field engineers often offer floodplain management workshops and send advance notices to the community building officials. It would be beneficial for community building officials and other local representatives to attend one of these workshops. In most cases, the instructors are approved to teach these workshops, and credit(s) may be applied toward some of your continued education requirements.

The following two documents are excellent floodplain management references that all communities should have and use. They are available electronically at the websites as provided, or by contacting the district offices listed above.

Handbook for "Floodplain Management for Local Officials", Revised 2004 Edition,

http://www.michigan.gov/deq/0,1607,7-135-3313_3684_3725-9441--,00.html.

The "Quick Guide" book
<http://www.deq.state.mi.us/documents/deq-glmd-MI-quickguide.pdf> or you can go to
<http://www.michigan.gov/deq>, then click on Water, Water Management, Floodplain Management.

Insurers Fear Mold Could Become the Next Asbestos

By John Haughey, Charlotte Sun Herald

For insurers, policyholders, "remediation experts," and attorneys, it's a portentous four-letter word: mold.

There are few federal or state guidelines defining good mold from potentially hazardous mold. There are no government regulations at any level stipulating how alleged mold damage should be handled.

With a cascade of conflicting information about the health effects of mold, an unregulated industry -- "mold remediation" -- has been spawned.

Insurers and the construction industry, facing a Pandora's box of mold-related litigation, are justifiably concerned about their potential liability, especially when much of the science regarding the health effects of mold and the credentials of "remediators" who assess and address mold damage are in dispute.

Many insurance companies fear compensating policyholders for mold damage will only open the floodgates to more claims which, in volume, cost, and legal ramifications, will rival if not exceed more than a quarter-century of asbestos-related litigation.

Caught in the middle are Florida policyholders whose homes and businesses have been damaged by a succession of hurricanes and are dealing with mold damage.

A state senator will introduce legislation in Tallahassee this winter that, if passed, will make Florida one of the nation's first states to regulate the mold remediation industry and establish a reliable baseline for insurers and policyholders.

"What we have is an unbelievable mess," Senator Mike Bennett, R-Brandenton, said. "We have too many people holding themselves out as mold

experts. They don't know any more about mold than you and I do."

Bennett sponsored a bill last year that outlined uniform standards, training, and certifications for mold remediators, but it never made it beyond committee level.

However, with Florida reeling from the effects of four hurricanes, a mounting backlog of insurance claims that often include disputed mold-damage assessments is stressing the necessity of a common criterion applicable to all companies and individuals who offer mold-remediation services.

"It's badly needed, very badly needed," said H. Darryl Miller, an environmental engineer and microbiologist with HDM Co. in Punta Gorda Isles.

"I'm running into more and more companies becoming involved in mold remediation," he continued. "There is a question whether they have experience and are properly schooled."

"I wouldn't mind that," said Rick Tapanes, of PrimeState Public Adjusters. "That way, everybody will be on the same page."

Bennett's bill calls for separating inspectors who investigate mold complaints and remediators who remove it.

"The person who identifies the problem should not be the one who fixes it," he said, noting the current system -- or lack of one -- gives mold remediators "carte blanche."

"We need to have some type of regulations governing some of these characters saying, 'I'm a mold expert,'" said Steve Finch, president and CEO of TIC/Mold Consultants of Port Charlotte.

"The mold remediators scare me," Finch continued. "You have to be careful with that word, 'mold expert.'"

The Claim Game

Even before the hurricanes, insurance companies were reporting a dramatic increase in mold claims, according to the Florida Insurance Council, a trade group based in Tallahassee.

Last year, more than 150 companies made special filings with the state's Department of Insurance to retain exclusions and qualify coverage for mold.

The filings range from total exclusions to coverage at a capped amount, such as \$5,000 to \$10,000, when mold results from sudden and accidental water damage.

"Maybe there should be" caps on mold-damage claims, Bennett said. "The problem is, we don't know, because we don't have any experts in the field."

The filings were "a pre-emptive strike to avoid a California- or Texas-like situation," said Robert Hartwig, of the Insurance Information Institute, a New York-based trade association.

In California, the state legislature passed the Toxic Mold Protection Act of 2001. The act required the state's health department to establish permissible exposure levels for mold and make recommendations on standards, which are still being formulated.

The Texas insurance industry has been in chaos since a family was awarded \$32 million because mold, created by a leaky pipe, forced them out of their home.

Many insurers stopped writing policies that provide coverage for water-related damage in Texas. Others issued moratoriums on writing new homeowners policies and dramatically increased premiums statewide.

Mold claims are more frequent in Texas than Florida because the state makes insurers pay for water damage caused by maintenance problems. However, the state allows insurers to cap damages at \$5,000.

In Florida, insurers pay to remove mold if spores are created by "a covered peril," such as a broken

pipe or burst dishwasher hose. If caused by a maintenance problem such as a leaky roof, insurers don't pay.

"Mold wasn't a problem in Texas and California until there were several multimillion-dollar lawsuits," said FIC Vice President Sam Miller in the group's white paper report on mold. "If it becomes a covered peril, the rates are going to go crazy."

Tapanes said in the hurricanes' wake, many insurers' adjusters looked for evidence that mold damage was a result of poor maintenance, not storms.

Finch agreed. "The minute you mention the word mold, (insurers) are sending their agents from Texas," he said. "They've been instructed to keep it to a bare minimum. You can't assess mold by putting a hand on the wall."

Friction between insurance companies and policyholders over mold damage is a source of growing concern, Tapanes said. "We have tons of these claims – 75 percent have some type of mold issue," he said.

But insurance companies have good reason to be alarmed about mold claims. 'Mold is gold'

Recent revelations regarding the health effects of mold, although hotly disputed by dueling microbiologists and industrial hygienists, have attracted the attention of homeowners, insurers, regulators, and, of course, attorneys.

Yet, the Environmental Protection Agency and the Centers for Disease Control have developed few guidelines that identify potentially harmful mold and define acceptable exposure levels.

"One person can breathe in a lot of mold without problems and someone else can have all sorts of problems," Finch said. "That's why the EPA is having a difficult time establishing standards."

With few standards for permissible exposure levels or effective remediation at the federal or state levels, Bennett said attorneys are capitalizing on the ambiguity.

"Trial attorneys have a new motto: Mold is gold," he said. "They want to sue everybody who has mold."

Some fear a tidal wave of mold litigation will swamp insurers and cripple the construction industry with

claims that could eventually dwarf the estimated \$275 billion paid out to 2.5 million plaintiffs during 25 years of asbestos lawsuits.

"It's even worse than asbestos," Miller said. "With asbestos, there were specific regulations covering what was dangerous and what was not. With mold, there is no such code, so it's up to the individual's interpretation."

Potential liability isn't exclusive to the insurance industry. In fact, attorneys have a target-rich environment: Builders, framers, plumbers, HVAC contractors, window manufacturers, and installers are all possible defendants.

Modern construction techniques and materials have indirectly contributed to the emergence of mold as an alleged health issue. Energy efficient homes with central air conditioning and heating systems spread mold spores more easily. "That is exactly right," Miller said.

Setting Standards

Miller said legitimate mold remediators use several different standards to measure and mediate mold infestation.

"A lot of associations are coming out with their own standards," he said. "A lot of the standards are good, but they haven't been proven."

Standards include those adopted by the American Industrial Hygiene Association, Indoor Air Quality

Association, and the Institute of Industrial Cleaning and Restoration and Certification, Dr. Miller said.

Many mold remediators also use criterion established by the New York City Department of Environmental Protection, he said.

Bill Lehan of Servicemaster of Charlotte County said his company uses the IICRC's guidelines. "Standards aren't sketchy," he said. "Mold mediation can be done very simply, if done properly."

Finch said his company takes air samples and ships them to a Miami lab to be examined by industrial hygienists.

"They have a Ph.D. in mold. I don't have that. All I have is experience working with mold," he said.

Tapanes says PrimeState Public Adjusters hires microbiologists "to go out there and run mold tests. Do air samples to determine the extent of the mold damage."

Until a set of common standards are encoded, disputes between policyholders and insurance companies regarding alleged mold damage will continue to slow hurricane recovery efforts.

"There has to be some regulation of mold remediators," Bennett said. "We need to set the standard at how the insurance companies look at mold, how attorneys look at mold, how contractors look at mold."

Grand Blanc Family Sitting High and Dry After May Storms

By Susan Cosier, Hazard Mitigation Officer, FEMA Region V, Community Mitigation Programs Branch

When the severe storms, tornadoes, and flooding struck the lower part of the state in late May 2004, few had any idea that it would affect tens of thousands of Michigan families and that more than \$51 million in grants and low-interest loans would be provided in disaster assistance. But for one Grand Blanc family, the storms and flooding had the opposite affect. They were sitting high and dry and didn't need any disaster assistance, while what used to be their home was flooded again.

Karen Minard couldn't believe her eyes when she returned to her old neighborhood near Thread Creek and discovered nine feet of water in the structure she had once called home. In fact, she

said that the flooding was as bad, if not worse, than the most damaging flood her family had endured.

"I was tired of getting flooded out," Minard exclaimed. When Thread Creek would flood, homes in that area experienced sewer backup. The double threat of flooding and sewage backup led the Minard family to participate in the buyout project.

The Minards were one of five families who participated in a voluntary buyout program just seven months earlier. Four of the acquired homes were still awaiting demolition in May when flooding struck again.

In 2000, a flood inundated the City of Grand Blanc, located just 10 miles south of Flint – severely damaging many homes and leaving roads impassible. Flooding from Thread Creek, together with poor drainage, caused major flooding that left home owners helpless and city officials unable to control the rising creek. Together, they took a proactive approach to deal with the repeated flooding in their area.

A federal disaster declaration made grant money available for mitigation projects throughout the state. Grand Blanc decided to pursue a Hazard Mitigation Grant Program (HMGP) project for the acquisition of homes damaged repeatedly from flooding.

According to Randy Byrne, city manager of Grand Blanc, city officials were getting tired of repairing the same damage after every flood and thought a proposal to acquire these homes at a cost share of 75 percent federal, 25 percent non-federal match could help solve the problem.

The community submitted its proposal, and the project was selected by the Michigan State Police/Emergency Management Division (MSP/EMD). When the Federal Emergency Management Agency (FEMA) approved funding, city officials provided home owners specific criteria for participation that included an appraisal and offer to buy out the property at pre-flood fair market value. Five homeowners decided to be a part of the voluntary project, and the federal share of the project was \$626,322.

In addition to the families who occupied the acquired homes, the community also benefited from the buyout. A major component of HMGP is that ownership of the acquired land reverts to the City with a deed restriction stating it must remain open space.

The City used the land, demonstrating a conscientious approach to floodplain management, by incorporating it into Rusk Park. The 20-acre recreational park, containing footpaths, baseball diamonds, and tennis courts, will be expanded by two acres as a result of this project. When Thread Creek floods in the future, there is no maintenance required for the park. Costs to the City and the risk to home owners have been greatly reduced.

When asked if he would pursue this type of project again, Byrne said, "It just depends on the number

of times home owners go through this before action is taken to get them out of harm's way." The key to involving the community in this type of project, according to Byrne, "is having a casual meeting and getting everyone on the same page." Informing the residents about the available options is imperative.

Mitigation projects are a joint effort on local, state, and federal levels. This project demonstrates how efforts on each level can contribute to fewer damages and lower risk. By being part of this project, the City no longer has to sandbag and call out public works crews to clean up the damage. Instead, the City has a larger park, a smaller risk of flooding, and happier residents.

On March 1, 2003, FEMA became part of the U.S. Department of Homeland Security. FEMA's continuing mission within the new department is to lead the effort to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Common Insurance Coverage Facts

Following are some common issuance coverage facts that the Ohio Insurance Institute (OII) compiled in anticipation of winter weather-induced insurance questions from Ohio citizens. These points are good points for Michigan citizens to be aware of also.

Regarding Flood Insurance

- Flood damage is excluded in all homeowners and renters insurance policies but, if desired, can be purchased as a separate insurance policy.
- Any licensed property/casualty insurance agent can sell a flood insurance policy. If you experience difficulty locating an agent, contact NFIP's agent referral program at 1-888-CALL FLOOD.
- There is a 30-day waiting period before a new or modified flood insurance policy becomes effective.
- Flood insurance coverage can be purchased for homes or businesses.

- Separate coverage must be purchased for the building and its contents.
- You do not need to live in a floodplain to purchase flood insurance. Coverage is available to any building located in a community that has qualified for the National Flood Insurance Program. Go to <http://www.fema.gov/cis/mi.pdf> for Michigan's flood insurance participating community listing from the NFIP.
- Coverage for water backup in basements (drains/sewers) is excluded from the flood insurance policy.

Basement Water Backup

- NOTE: Coverage and limits vary by insurance company, so check with your agent/company about specifics.
- Although basement water backup is excluded under most homeowners insurance policies, coverage can be obtained by purchasing an endorsement.
- Some insurers include full coverage for sump pump failure, while others specify items that are covered.

MSFA Conference New Format a Welcome Success

By Les Thomas

This year the Michigan Stormwater-Floodplain Association (MSFA) held its 18th annual conference, but with a major change from past years. In response to the membership's feedback that a multi-day conference should be provided, the 2005 conference was planned for February 14 through February 16. The conference agenda included the Association's annual general membership business meeting, general presentation, and concurrent sessions, including a floodplain management refresher course, a proctoring of the national Association of State Floodplain Managers' certified floodplain manager (CFM) exam, a vendor display, and reception area. During the evenings, many conference participants took advantage of more casual setting opportunities to meet with fellow professionals and the vendor representatives at vendor-sponsored hospitality gatherings.

The board of directors began its consideration and initial planning for this year's conference shortly after the conclusion of the 2004 conference. They met regularly throughout the year right up to the conference date. It takes a lot of time commitment from many volunteers to successfully plan, develop, and orchestrate a successful multi-day conference. The Association officers and the board of directors deserve a great deal of credit and gratitude for their efforts.

The process was a learning experience, and fortunately there was an opportunity to take advantage of what others already knew about putting a large conference together. The MSFA was able to work with the Michigan Association of County Drain Commissioners (MACDC) and

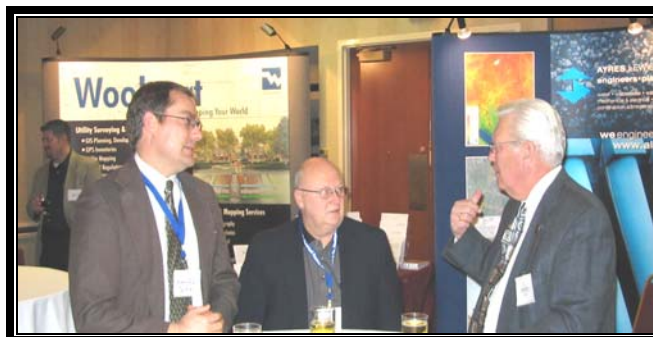
piggyback with its winter conference planning efforts. Due to common interests between the two associations, it was determined that the scheduling of both association conferences back to back at the same location could facilitate a mutually beneficial relationship between the association members.

Comments received during and after the MSFA and the MACDC conferences from attendees were positive and supportive of the new format and the developing relationship between the two associations. The MSFA conference had 103 attendees and nine firms represented in the vendor portion of the conference. The Grand Traverse Resort conference facilities, lodging, and its atmosphere were very conducive and complimentary to an enjoyable and successful conference program. The MSFA's officers and board of directors held a post conference evaluation meeting and have started preliminary plans for next year's conference. **Strong consideration is being given to another multi-day format next year in concert with the MACDC winter conference. The timing for the conference will likely be in the month of February again and at the Grand Traverse Resort and Spa. So, start looking at your training and travel budget for next year and consider budgeting for your attendance next year so you can join us and benefit from this great conference.**

Following are a few candid photos of attendees enjoying the opportunity to meet, share stories, and suggest fixes to issues.



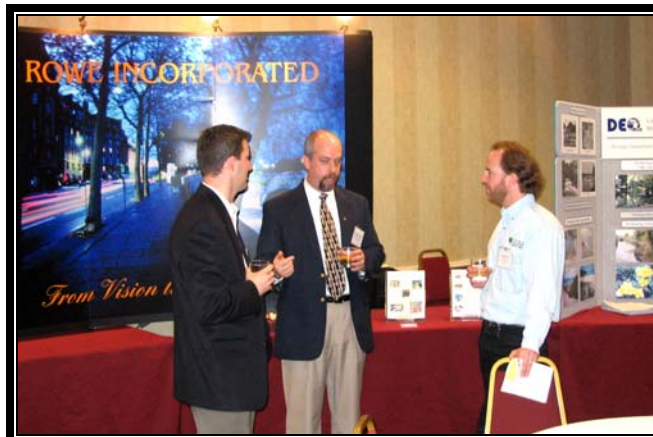
"Are you sure you want to tell that story in front of your MDEQ floodplain engineer?"



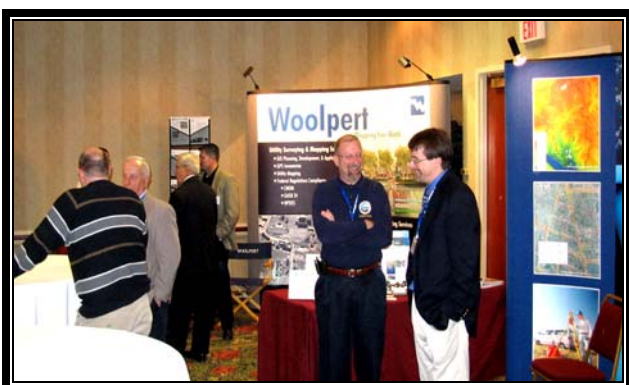
Retirees are full of – stories



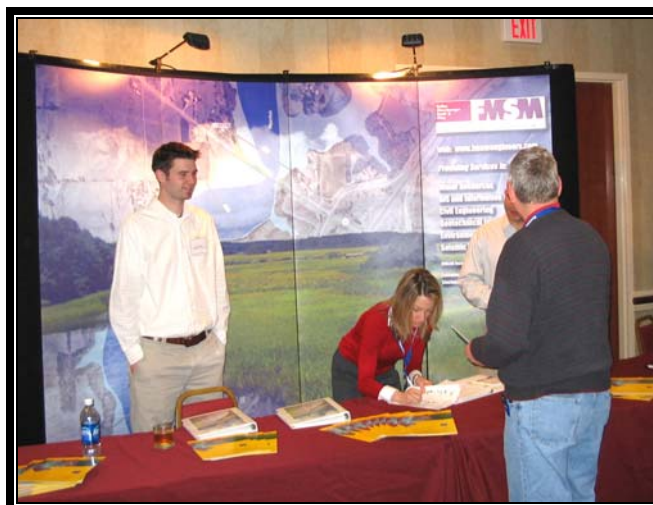
Variety is the spice of our firm – or is it Larry? Maybe it's Hope!



"Okay you two, can you help me?"



"Do you think those two are lost? They should be using our maps."



"Are you sure that's a better map – and where is my house on that new map?"



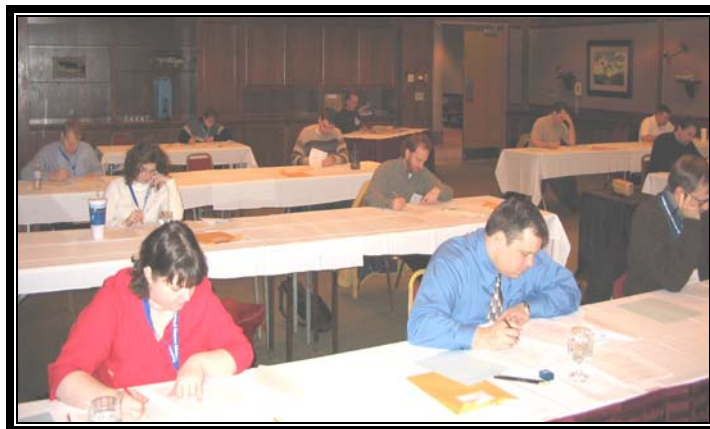
"Now, this is what we think FEMA should be doing with the new map mod initiative – and everything else!"



Great breakfast to start the day with, but where is that sunrise?



"Okay, I now know how to build a rain barrel, but is it a structure that needs a floodplain permit and flood insurance?"



"Now, I think I remember studying that last night."
CFM exam



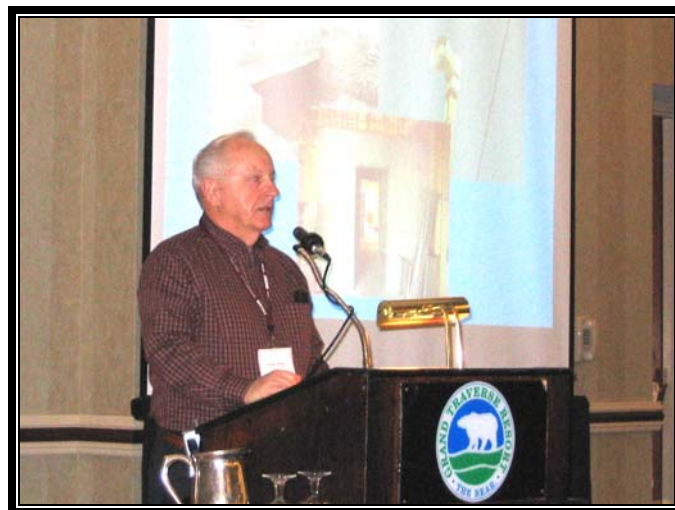
MDEQ floodplain engineers comparing notes on who has the biggest workload or the best NFIP communities.



Registration: "And your name, sir?"



"Hazard mitigation can include these things, and grant monies are available..."



"Well, when I was growing up in floodplain management, this was the best answer."



"New map mod maps will also help the drain commissioners ..."

CFM Program is Alive and Growing in Michigan

By Les Thomas

This past October 2004, the MDEQ proctored the Association of State Floodplain Managers (ASFPM) Certified Floodplain Manager (CFM) certification exam in Lansing. Interest in this program by people involved in floodplain management across the state led to the exam proctoring by the Michigan Department of Environmental Quality (MDEQ) on behalf of the ASFPM. The October exam proctoring resulted in seven individuals successfully passing and becoming certified by the ASFPM as Certified Floodplain Managers. Those receiving the CFM certifications were:

Michael Bastien, City of Troy
 Joy Brooks, MDEQ-Saginaw Bay District
 Jason Matteo, Applied Science, Inc., Detroit
 John Michalski, Applied Science, Inc., Detroit
 Shawn Middleton, Spicer Group, St. Johns

Neall Schroder, City of Troy
 Andy Stamm, Wilcox Professional Services, LLC, Caledonia

The exam has been typically offered at the annual Michigan Stormwater-Floodplain Association (MSFA) conference. The 2005 conference was no exception. One of the successful portions of the MSFA multi-day conference held at the Grand Traverse Resort February 14-16, 2005 was the floodplain management refresher course, followed by the proctoring of the ASFPM CFM exam again. The refresher course was sponsored and provided by the firm of PBS&J from Beltsville, Maryland. It was attended by 27 individuals representing staff from local, county, state, and federal units of government, and private consulting firms. The subsequent proctoring on the CFM exam resulted

in 13 persons becoming newly certified. Prior to this group of professionals, only 20 persons were certified by the ASFPM as CFMs in Michigan.

The MSFA has begun a new effort to promote and support the ASFPM CFM program among Michigan's floodplain managers. It involves the presentation of framed certificates to MSFA

members that have made the extra effort in improving their knowledge of floodplain management concepts and principles and have studied hard to take and pass the CFM exam. A certificate of recognition and congratulations was presented to 12 MSFA members that have obtained the ASFPM CFM certification, see photo below.

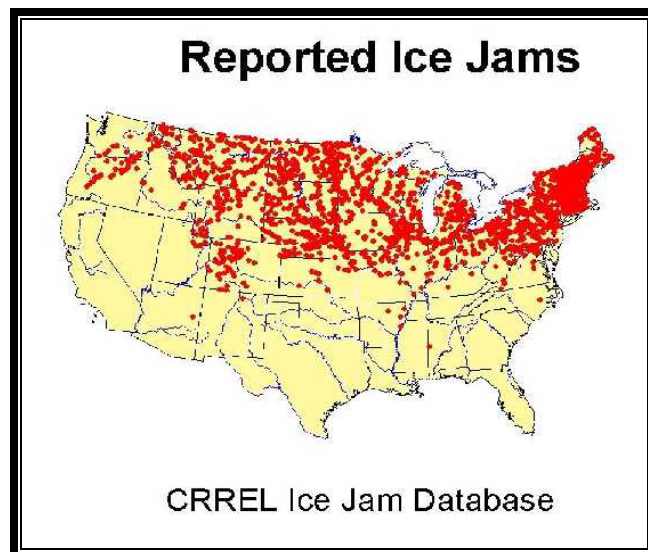


Back row l to r: Dan Zay of DLZ in Lansing, Melissa Madigan of Anderson, Eckstein and Westrick in Shelby Township, George Hosek of Spicer Group in St. Johns, Bob Haneline of Rowe Engineering in Flint, and Mike Bastien of City of Troy. Front row l to r: Wally Wilson of Wilson Consulting in Williamston, Joy Brooks of MDEQ in Saginaw, Hope Croskey of Spicer Group in St. Johns, and Maria Zingas of MDEQ in Livonia. Absent is Shawn Middleton of Spicer Group in St. Johns, Andy Stamm of Wilcox Professional Services, LLC in Caledonia, and Jaspreet Randhawa of Anderson, Eckstein, and Westrick, Inc. in Shelby Township

Ice Jam Flooding

By Les Thomas

Mother Nature continues to prove her prowess by treating some of Michigan's residents to one of her unfortunate winter seasons of ice jam flooding. A combination of temperature variations, precipitation, and physical nature of impacted rivers caused majoring ice jamming on the Muskegon River in Mecosta Township, Mecosta County; the Grand River in Robinson Township; Ottawa County and Grand Rapids, Kent County; and the Kalamazoo River in Allegan County. At least 16 other lesser incidents of ice jamming have been recorded this winter on the same rivers, in addition to the St. Joseph, Raisin, Pere Marquette, Huron, Flat, and Au Sable Rivers. Ice jams are not specific to just Michigan. They regularly occur across the northern part of the nation as shown on the following USACOE map.



U.S. Army Corps of Engineers' Map

This winter's ice jam occurred when periods of low temperatures caused substantial ice formation on the rivers, followed by warm spells with rainfall and rapid snow melt. The warmer temperatures, along

with the increased runoff to the rivers, caused the ice cover to rise, break up, and start moving downstream with the increased river flows. The physical character of the river channels directly affected the moving mass of ice and slush.

Changes in the river channel shape and dimensions, such as islands, sand bars, shallow areas, river bends, narrow channel areas, natural and manmade impediments, such as a stable consolidated ice cover, dams, culverts, and bridges, causes the ice and slush to slow or stop and begin to collect upon itself. The slush acts as mortar as it moves between the ice chunks, filling and packing into the spaces.



Ice flow stacked on top of itself, creating jam with wood debris from upstream channel scouring, in Mecosta County

As this process occurs, water will seek other avenues to flow downstream. Channel bottom erosion will create new flow areas in the river channel under the ice jam. This often happens and is not obvious to the onlooker from above. As water flow volume increases and the new flow areas are not created fast enough or large enough, the water will dam up behind the ice jam. Given enough damming of the water flow, the river banks will overflow into the floodplain, and home owners find themselves at greater risk of being in harm's way.

This process is natural and is Mother Nature at work by design. The U.S. Corps of Engineers has developed some technology to mitigate ice jamming and its impacts. Corp policy considers ice jam resolutions/removals to be local responsibilities, and the Corp is available for technical assistance and guidance. However, there is generally very little that can be done to prevent ice jams, as they occurred this winter, or to get rid

of them after they have developed. Efforts to remove ice jams represent a last resort for the Corp, due to the complexity of such situations.

When people choose to live close to the various wonders of waterfront living, they find themselves competing in true outdoor extreme games. And, guess who always wins? The best action that any person can take is the avoidance of areas that represent risk to property, health, and life. People need to give serious consideration to what harmful impacts they may experience if they choose to build and live along any waterbody.

Wise planning of site location decisions for new structures is one of the first and most valuable actions that citizens can do for themselves to minimize their chances of being in harm's way due to flooding. People need to make sure that, in choosing to build near waterbodies, they make every effort to comply with community zoning and building ordinances, state construction and health codes, and MDEQ permitting requirements. These regulations are designed to protect citizens by reasonably minimizing adverse flooding impacts. If these regulations are effectively applied and complied with, there is less chance for new construction in the floodplains to be as adversely impacted than there is for existing older structures.

However, the rigors and impacts that moving water can have are not items that are always acknowledged, easily observed, or understood by many (citizens and, unfortunately, community leaders). This is especially the case during times of normalcy when everything is well with one's closeness to nature – the calm, sunny day at the river. This year's ice jam flooding incidences clearly demonstrate how much value there is for a community to have an effective floodplain development management program for its citizens.

Impacts from this year's ice jamming affected old and new. In many areas, the old was impacted again, as has happened in the past. People seem to get accustomed to such conditions, and work through them to the next time. It's a cycle that can be effectively changed at the community level with proper floodplain development management. In some cases, new construction occurred to lessen the risk during the next event, and success was had. Both of these cases were demonstrated in Robinson Township of Ottawa County. Over 40 structures were adversely impacted again, as in the past. At least one historical structure was recently raised, under the Township's oversight, to above

the base flood elevation and was able to avoid the flood damage that most other structures incurred.

The Mecosta Township flooding provided additional contrast. The community does administer the state construction code. However, for undetermined reasons under a construction code building permit, a new residence was constructed adjacent to the Muskegon River at an elevation that resulted in the new daylight basement to become flooded before the structure was even completed. This case is under MDEQ review and appears to be an unpermitted structure under the state's floodplain regulatory statute. The resolution of this situation may likely require the loss of the new basement area by filling it in to establish a lowest floor elevation above the base flood elevation. This particular river area is historically recognized as a floodprone area due to ice jamming conditions. Consideration and effective application of this knowledge by the builder and the community when the building permit was being reviewed may have avoided this unfortunate exposure to flooding.



New home still under construction with flood water level at one corner of flooded basement even after water had receded some in Mecosta County. In area of known ice jam flooding.



Same new home showing additional sump discharge pipe to lower water level in flooded basement in Mecosta County



Former seasonal trailer home converted to full time residence adjacent to river bank with flood waters at base of home, causing water well and electrical damage

In some cases where such a cycle is established, tough decisions have to be made by the community leaders and the impacted citizens; the toughest being the consideration of existing habitation and structure removal and the return of the floodprone area to open space.

This is the very situation that the citizens of Limberlost and Van Lopik subdivisions and the Robinson Township officials in Ottawa county are faced with. This area was impacted the worst by the ice jam flooding. The result was the issuance to all residents of the two subdivisions a "suspension of occupancy" order by Robinson Township. Both developments are within the floodway of the Grand River. These are historical developments (1950s-60s) that have gradually grown from unregulated construction of seasonal boat house recreational structures and unregulated conversions to weekend cottages, summer use cottages, and year round residences. Under the State's Floodplain Regulatory Authority found in Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, current governmental oversight restricts new and increased habitation of the floodways to assure that they are kept free and clear of interference or obstruction that will cause any restriction of the capacity of the floodway.



Robinson Township



Robinson Township



Robinson Township



Robinson Township



Robinson Township

Through Robinson Township's efforts to administer an effective floodplain development program, neither it nor the MDEQ will authorize any new habitation of the floodway area in these two subdivisions. The only authorizations that will be considered by either agency will be for health code compliance activities designed to replace existing failed septic tank tile field systems. The Ottawa County Health Department has made the determination that only a properly designed pump haul system can be considered for replacement and approval. Even then, there has to be a demonstration made to MDEQ that such proposals will not cause an increase in flood stages before they can be approved.

The pump and haul design and demonstration required for replacement septage disposal systems is one alternative for existing residents to consider in their efforts to regain occupation of their homes. The local agencies are pursuing the alternative of a buyout program designed to relocate and make the impacted citizens whole again and to remove the structural impediments from the floodway of these two subdivisions. There are federal grant programs that can help fund buyout programs. The success of obtaining such grants will depend upon the community's ability to commit to the monetary match requirement, the willingness of the residents to participate, and the priority received during the grant review process.

Time and a continuous effort by knowledgeable local administrators will hopefully provide changes to past patterns and practices such that more and more citizens recognize exposures to flooding and act in ways to minimize their impacts.



Bridge impeding ice flow in Grand Rapids



Flood water level around seasonal home in Mecosta County



Ice jam on the Riverwalk in Grand Rapids



Flood water level around seasonal home in Mecosta County



Water level and ice jam above dam at fish ladder in Grand Rapids



Lowered water level on seasonal home showing iced shelving from earlier higher flood water level in Mecosta County

Michigan Stormwater-Floodplain Association 2005 Scholarship Recipient



Shane A. Bennett

Shane Bennett, of Clarkston, Michigan, is currently a junior at Michigan State University working towards a Bachelor of Science in Biosystems Engineering. His interests include: natural resources protection, including wetland creation and conservation, and watershed management. He hopes to find an internship with an environmental engineering consulting firm that would include some field experience during the summer of 2005. He exemplifies a strong work ethic and enjoys working with a team.

He was named the Outstanding Sophomore in Biosystems Engineering in 2003/2004 and received the Howard and Esther McColly Scholarship for Excellence in Biosystems Engineering in the fall of 2004. He has remained on the Dean's List since his first semester at MSU and has a cumulative grade point average of 3.9/4.0.

He is a student member of the Society for Engineering in Agricultural, Food and Biological Systems (ASAE) and an active member of the MSU Chapter of Ducks Unlimited. He is also an active member of the Michigan United Conservation Club. He enjoys hunting and fishing and is a sports fan and participant. He is an avid reader of political publications and the Wall Street Journal.

As summarized in his essay: "Watershed management is a valuable tool that serves as a great benefit to society. The economic benefits from utilizing floodplains must be balanced with environmental sustainability and safety for life and property. A healthy floodplain and stream system will maximize benefits to all interests; economic, recreational, and environmental. A sound management plan, using the latest information and technology, will minimize human impacts on the watershed and minimize the watershed's adverse effects on humans. An engineering approach to floodplain problems will produce successful results with such problems as: flooding, stream bank erosion, and point source and non-point source pollution. My main goal is to find a job where I feel that I am making a difference, and this is an area that I feel passionate about. I want to be able to see the benefits of my work; for both people and the environment. I want to tackle problems that have social, economic, and environmental aspects. I want to find sustainable solutions that take into account all these aspects."

QUESTION AND ANSWER

In an effort to provide service to and meet specific needs of floodplain managers and other citizens involved or impacted by floodplain management programs, we provide a question/answer segment as a regular item of the newsletter. Staff will select questions, received on a regular basis from the public and from other staff, that they feel may be of interest and value to others. Readers are encouraged to send in questions relative to issues involving floodplain management and the National Floodplain Insurance Program. Staff will review all submitted questions and select those that they believe are applicable to the intent of the newsletter and that can be efficiently researched and clearly answered.

Questions can be e-mailed to thomasl@michigan.gov or sent to Les Thomas, Michigan Department of Environmental Quality, Land and Water Management Division, PO Box 30458, Lansing, MI 48909-7958.

Question: What is the role of the NFIP community in floodplain management?

Answer: When the community chooses to join the NFIP, it must adopt and enforce minimum floodplain management standards for participation. FEMA works closely with the State and local officials to identify flood hazard area and flood risks. The floodplain management requirements within the SFHA are designed to prevent new development from increasing the flood threat and to protect new and existing buildings from anticipated flood events.

When a community chooses to join the NFIP, it must require permits for all development in the SFHA and ensure that construction materials and methods used will minimize future flood damage. Permit files must contain documentation to substantiate how buildings were actually constructed. In return, the Federal Government makes flood insurance available for almost every building and its contents within the community.

Communities must ensure that their adopted floodplain management ordinance and enforcement procedures meet program requirements. Local regulations must be updated when additional data are provided by FEMA or when Federal or State standards are revised.

Editor: Les Thomas

For questions, comments, or information, contact:

Les Thomas
MDEQ
LWMD
P.O. Box 30458
Lansing, MI 48909-7958

Telephone: 517-335-3448
Fax: 517-373-9965
e-mail: thomasl@michigan.gov

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MDEQ
Office of Personnel Services
P.O. Box 30473
Lansing, MI 48909

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**Department of Environmental Quality
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